

Bright light therapy may improve sleep and promote recovery in patients with mild TBI

May 31 2013

A new study suggests that bright light therapy may improve sleep, cognition, emotion and brain function following mild traumatic brain injury (TBI).

Results show that six weeks of morning bright light therapy resulted in a marked decrease in subjective daytime sleepiness. This improvement was further associated with improvements in the propensity to fall asleep and nighttime sleep quality. Bright light therapy also affected depressive symptoms.

"Our preliminary data suggests that morning bright light therapy might be helpful to reduce subjective daytime sleepiness and to improve nighttime sleep," said investigator Maren Weber, PhD, instructor in psychiatry at McLean Hospital/Harvard Medical School in Belmont, Mass. "Importantly, the research also shows changes in [brain activation](#) during a demanding cognitive task, suggesting that bright light treatment might yield changes in brain functioning."

The research abstract was published recently in an online supplement of the journal *SLEEP*, and Weber will present the findings Monday, June 3, in Baltimore, Md., at SLEEP 2013, the 27th annual meeting of the Associated Professional Sleep Societies LLC.

The study group comprised 18 individuals with a documented history of at least one mild TBI and sleep disturbance that either emerged or was aggravated with the most recent injury. Data were gathered using

Multiple Sleep Latency Tests (MSLT), actigraphy and sleep diaries, and all participants underwent [magnetic resonance imaging](#) (MRI) and comprehensive psychiatric and neuropsychological assessments before and after the intervention.

According to the authors, it has been estimated that at least 50 percent of individuals with TBI experience some kind of sleep disturbance at some point following their injury, and sleep has been demonstrated to be essential for [brain plasticity](#) and may be important for recovery.

"Improving sleep following mild [traumatic brain injury](#) could prove critical to maximizing recovery from the injury," said Weber. "Furthermore, bright light therapy is easy and minimally invasive, requiring no medication, and has no known serious side effects."

Provided by American Academy of Sleep Medicine

Citation: Bright light therapy may improve sleep and promote recovery in patients with mild TBI (2013, May 31) retrieved 9 May 2024 from <https://medicalxpress.com/news/2013-05-bright-therapy-recovery-patients-mild.html>

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